PRIOR ART

Video Source — 1

channel† — 2

Video Destination — 3

feature extraction — 5

feature extraction — 6

7

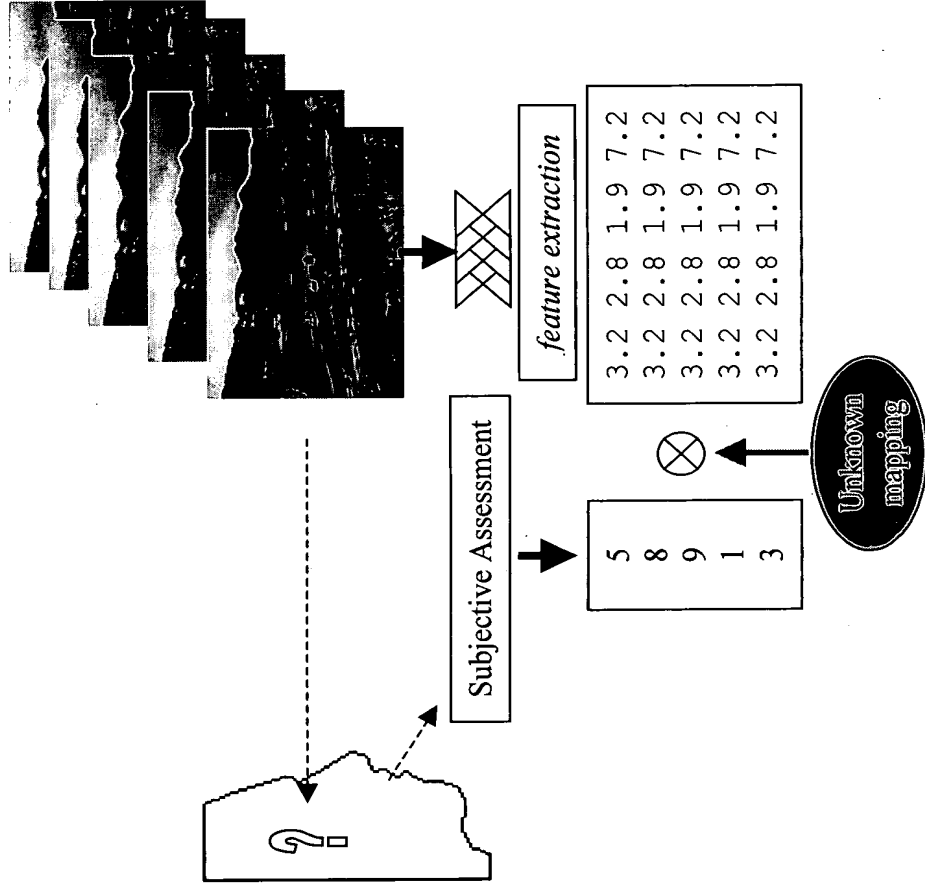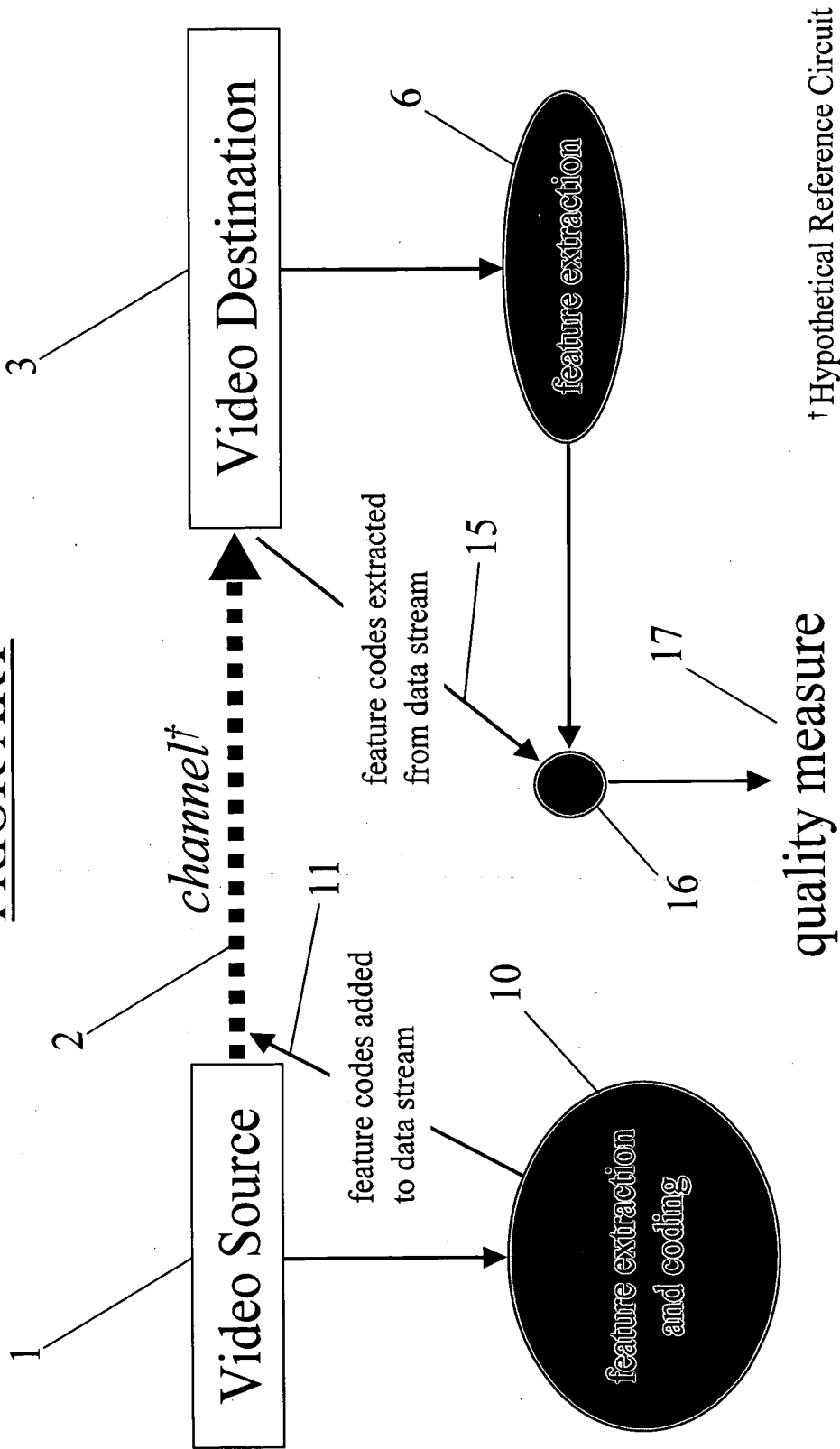quality measure — 8

†Hypothetical Reference Circuit

FIG. 1

PRIOR ART

FIG. 2

PRIOR ART

feature extraction

3.2	2.8	1.9	7.2
3.2	2.8	1.9	7.2
3.2	2.8	1.9	7.2
3.2	2.8	1.9	7.2
3.2	2.8	1.9	7.2

Subjective Assessment

5
8
9
1
3

Unknown mapping

⊗

FIG. 3

PRIOR ART

Video Source — 1

channel† — 2

Video Destination — 3

feature codes added to data stream — 11

feature extraction and coding — 10

feature codes extracted from data stream — 15

feature extraction — 6

16

17

quality measure

† Hypothetical Reference Circuit

FIG. 4

PRIOR ART

Video Source 1

channel[†] 2

Video Destination 3

feature extraction 6

quality measure 21

20

† Hypothetical Reference Circuit

FIG. 5

30   31   32   33   34

cut

And now, a message from our sponsor.
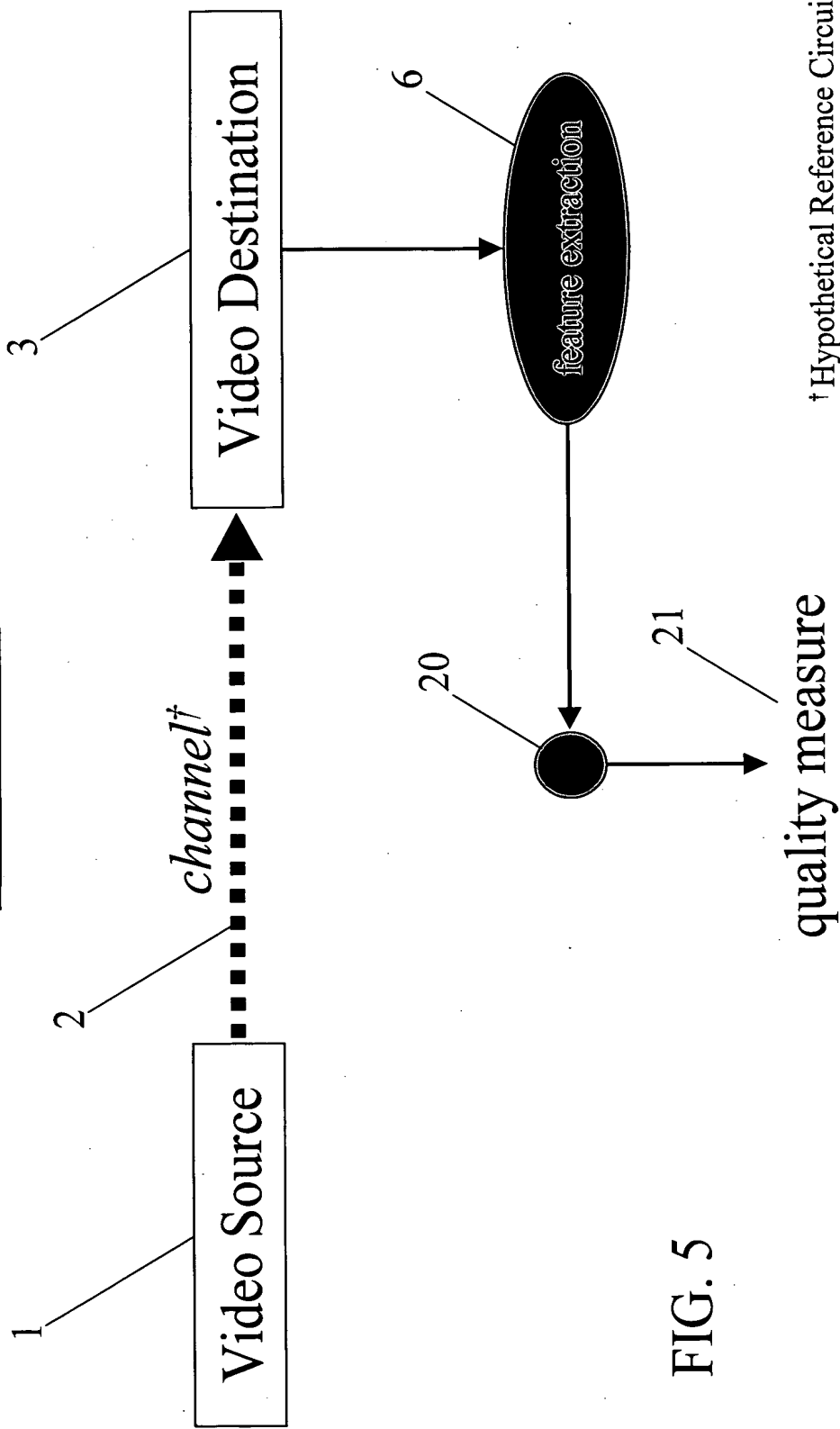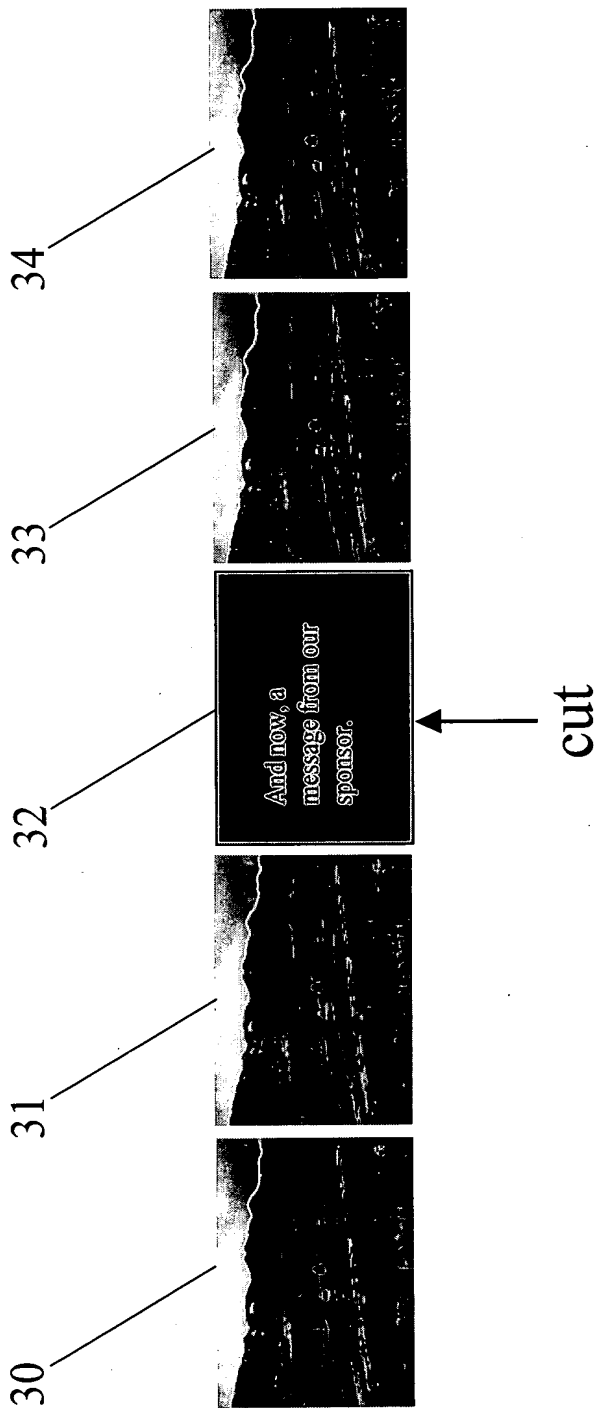
FIG. 6

Correlation Coefficient Cut Analysis

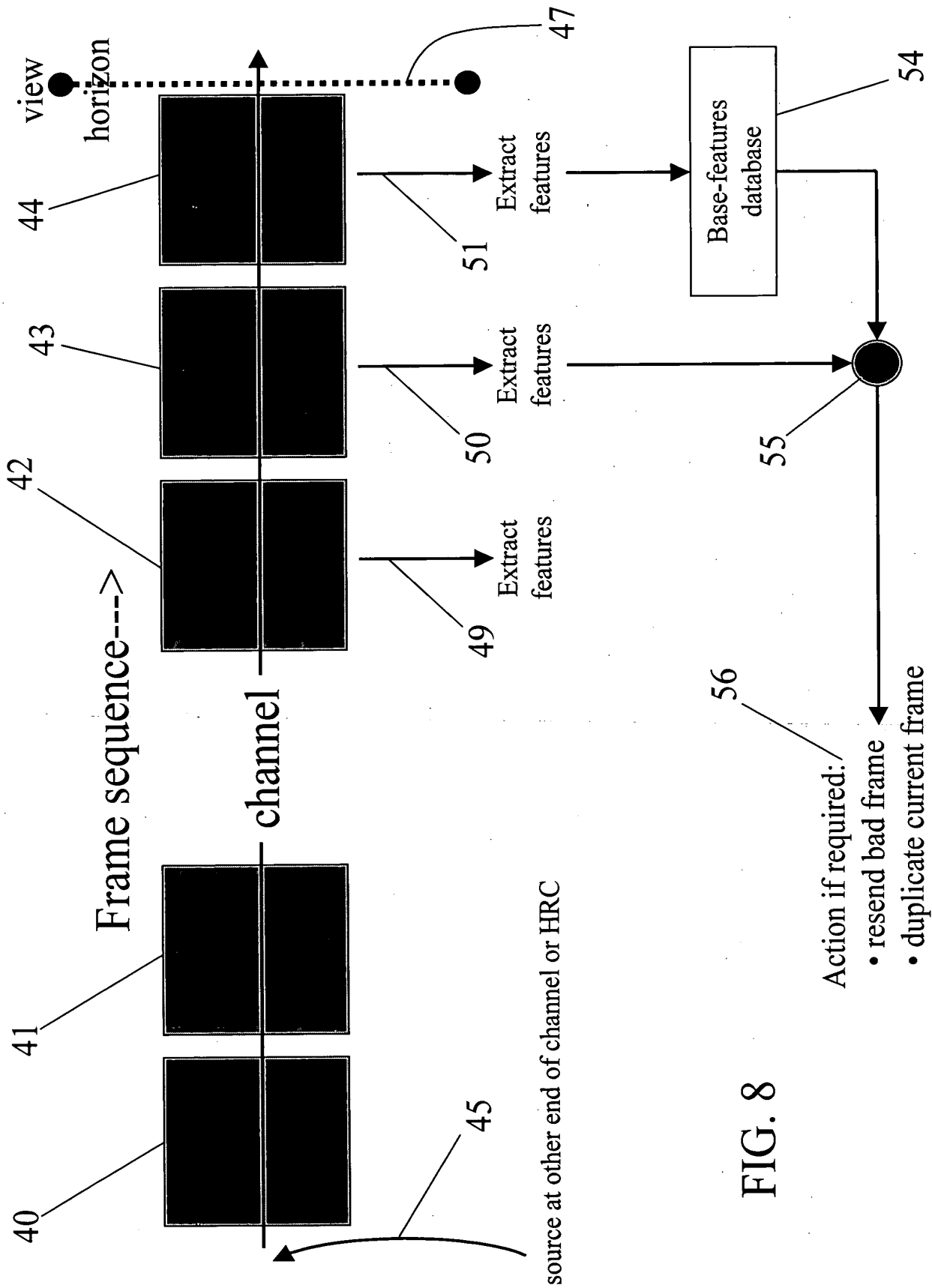| Image	Corr.Coef.
smpte300	
smpte301	0.98765
smpte302	0.9878
smpte303	0.98783
smpte304	0.98675
Change of sequence (Cut)	
suzie300	**0.0563**
suzie301	0.9799
suzie302	0.9801
suzie303	0.98354
suzie304	0.982
Frame of Lesser Quality (Different levels of noise added)	
suzie305	0.9045
suzie305	0.7385
suzie305	0.6432
suzie305	0.4965

FIG. 7

FIG. 8

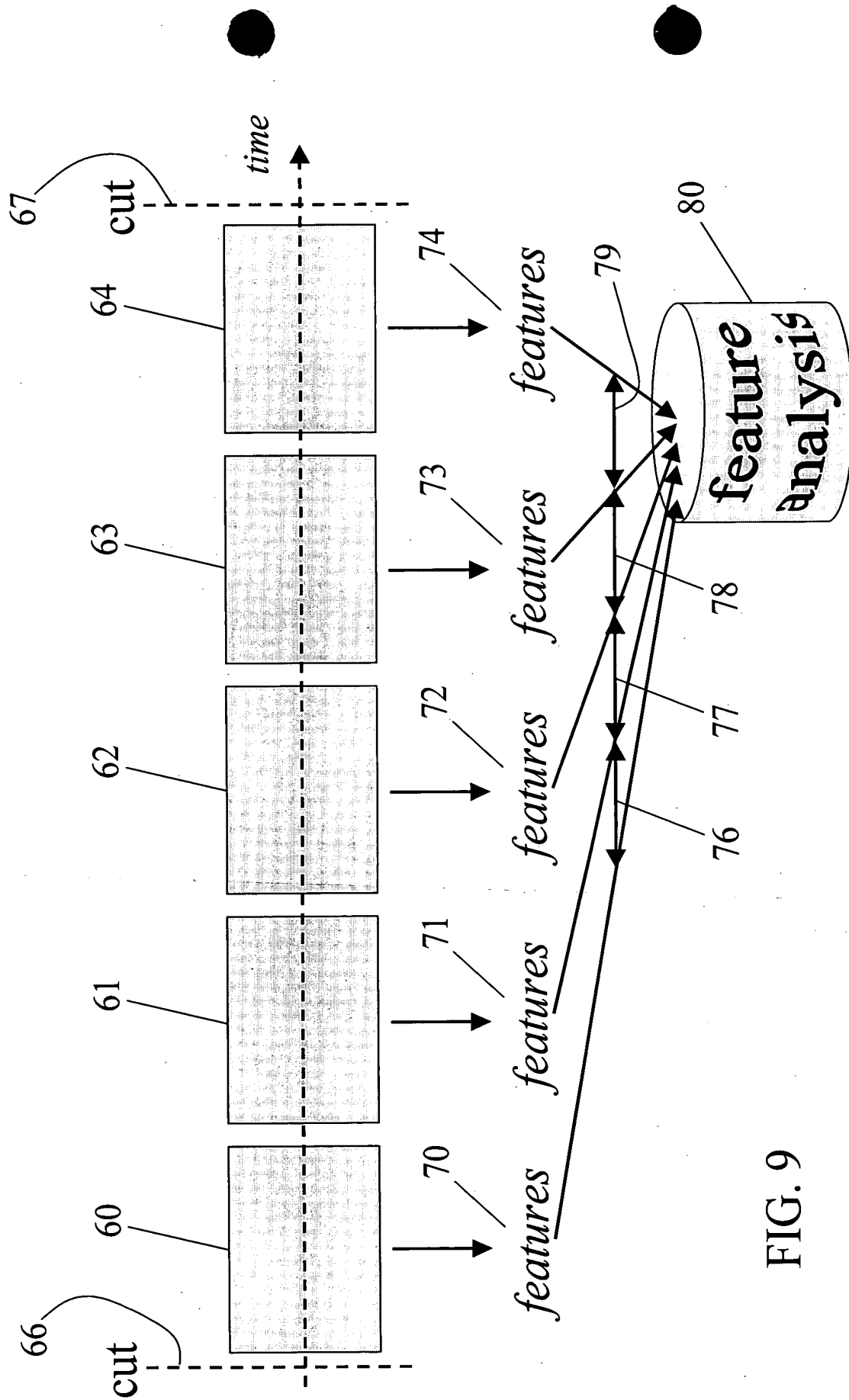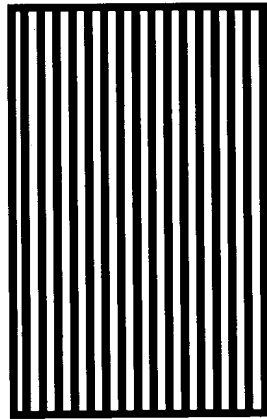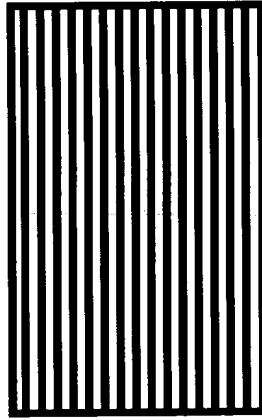FIG. 9

Even field features should match odd-field features...

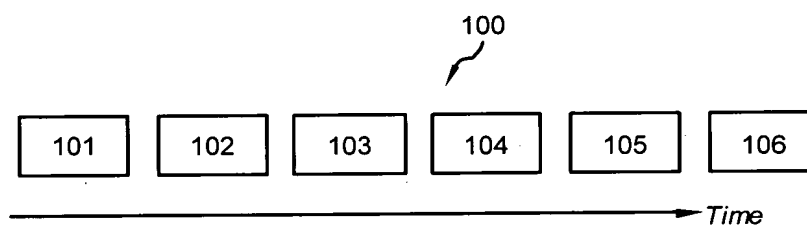if not, a degradation has occurred during the interlace interval.

FIG. 10

100

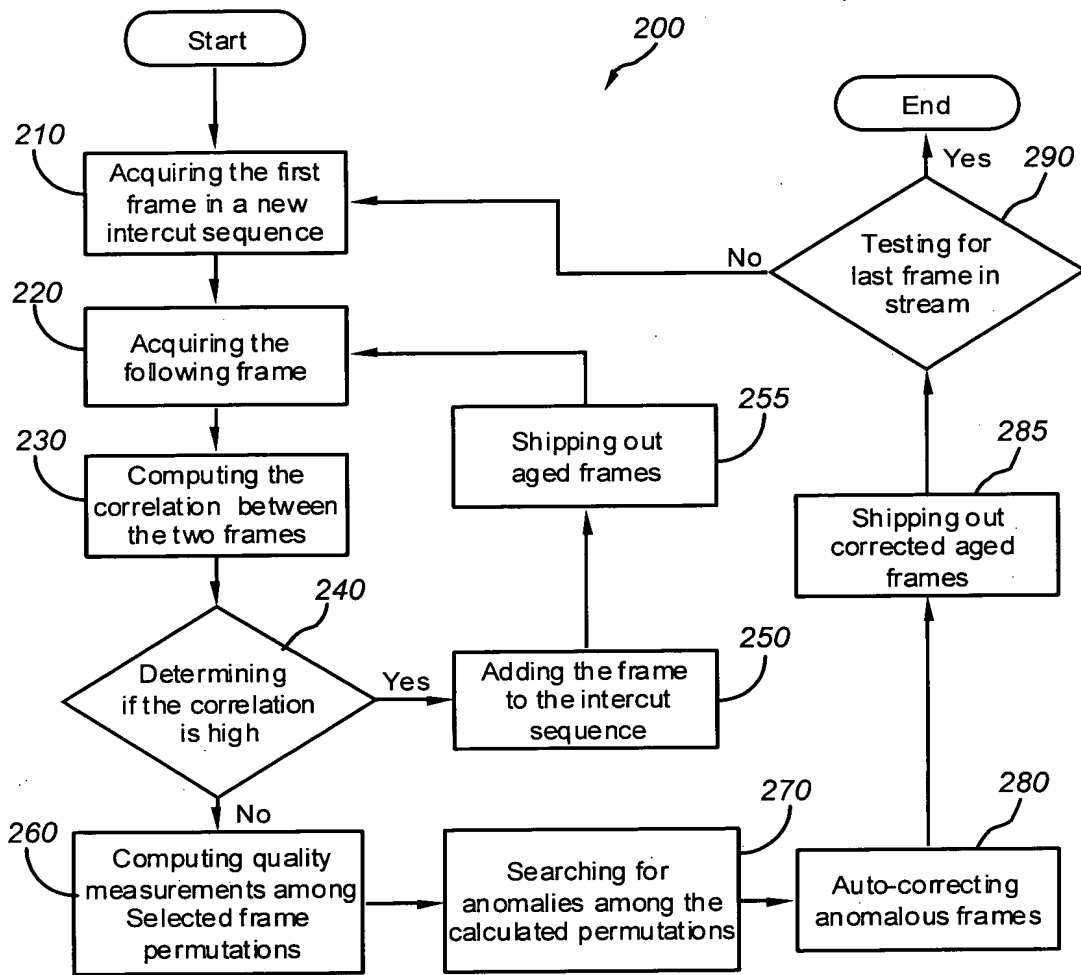| 101 | 102 | 103 | 104 | 105 | 106 |

Time

FIG. 11

Start

200

End

210

Acquiring the first
frame in a new
intercut sequence

Yes   290

No

Testing for
last frame in
stream

220

Acquiring the
following frame

255

Shipping out
aged frames

230

Computing the
correlation between
the two frames

285

Shipping out
corrected aged
frames

240

Determining
if the correlation
is high

Yes

Adding the frame
to the intercut
sequence

250

No

260

Computing quality
measurements among
Selected frame
permutations

Searching for
anomalies among the
calculated permutations

270

Auto-correcting
anomalous frames

280

FIG. 12